

**IN THE CLAIMS:**

1.-18. (Canceled)

19. (Currently Amended): A device produced according to the method of making a silicon micromechanical structure, comprising the steps of:

forming a lightly doped silicon substrate having a first and second side and having less than  $5 \times 10^{19} \text{ cm}^{-3}$  boron therein;

placing only a single strain compensated p+ layer on the first side of said substrate by doping with boron and germanium to form an etch stop, said p+ layer having a boron content of greater than  $7 \times 10^{19} \text{ cm}^{-3}$  and a germanium content of no more than about  $1 \times 10^{21} \text{ cm}^{-3}$ ;

forming a mask on second side for etching a predetermined pattern;

etching said second side to said p+ layer to form a silicon diaphragm;

depositing an insulator on said p+ layer; and

fabricating an electronic component as a micromechanical structure on said insulator.

20. (Previously Presented) The device of Claim 19, wherein said boron content is greater than  $1 \times 10^{20} \text{ cm}^{-3}$  and the germanium content is from about  $0.5 \times 10^{21} \text{ cm}^{-3}$  to about  $2.0 \times 10^{21} \text{ cm}^{-3}$ .

21. (Previously Presented) The device of Claim 19, wherein said micromechanical structure is a pressure sensor.

22. (Previously Presented) The device of Claim 21, wherein said electronic component is selected from the group consisting of dielectrically isolated piezoresistors and resonant microbeams.

23. (Previously Presented) The device of Claim 19, wherein said micromechanical structure is a cantilevered accelerometer.

24. (Previously Presented) The device of Claim 23, wherein said electronic component is selected from the group consisting of dielectrically isolated piezoresistors and resonant microbeams.

25. (Previously Presented) The device of Claim 19, wherein said micromechanical structure is a dual web biplane accelerometer formed by forming a said p+ layer on both sides of said substrate, forming a proof mask and flexure etching on both sides of said layer until said etching reaches said p+ layers.

26. (Previously Presented) The device of Claim 25, wherein said electronic component is selected from the group consisting of dielectrically isolated piezoresistors and resonant microbeams.

27. (Previously Presented) The device of Claim 19, wherein said micromechanical structure includes a dielectrically isolated piezoresistor formed on a top surface of a first wafer, a second wafer is bonded to said first wafer, and said second forms a single crystal piezoresistor.

28.-36. (Canceled)